

Do DEEP Institutions Spend More or Differently Than Their Peers?

National Center for Higher Education Management Systems (NCHEMS)

Draft

Background. In September 2004 the NSSE Institute requested the National Center for Higher Education Management Systems (NCHEMS) to undertake an expenditure analysis for twenty institutions selected as study sites for the Documenting Effective Educational Practices (DEEP) project. DEEP institutions were selected for study because they performed at higher than expected levels on both NSSE benchmarks and student retention, after taking a range of different institutional factors into account. Using publicly-available data on institutional expenditures drawn from the federal Integrated Postsecondary Education Data System (IPEDS), NCHEMS was asked to examine how DEEP institutions spent their money by category in terms of the proportions of expenditures devoted to various institutional functions and the absolute dollar amounts spent per FTE students in these categories.

Methodology. Data for the analysis were drawn from the 2001-2002 IPEDS finance files, the most recent years for which these data were available. The analysis basically involved a three step process. First, NCHEMS constructed peer groups for each of the twenty DEEP institutions using its standard routines for doing so. Expenditure data were then assembled for all institutions identified and were adjusted to take into account such factors as research activity, relative institutional emphasis on graduate instruction, and differences in regional costs. Costs per FTE undergraduate student and percentages of adjusted institutional expenditures by expenditure category were then aggregated for each of the twenty resulting peer groups and compared to their counterpart results for each DEEP institution.

The standard NCHEMS methodology for creating institutional peer groups makes use of a clustering algorithm and allows users to weight various institutional factors in choosing peers. All institutions in the IPEDS universe are assigned points that indicate their calculated distance from the target institution based on this algorithm. For the DEEP analysis, variables used for the selection in all cases included total headcount enrollment, graduate enrollment as a proportion of total enrollment, part-time enrollment as a proportion of total enrollment, degree mix (measured in terms of both programs offered and degrees granted), 1998 Carnegie Classification, and admissions selectivity. Additional variables were included for some institutions where this was warranted, including total research expenditures (for large research institutions only) and urban location (for urban-located institutions only). To create the first set of peers for each DEEP institution, a consistent point-difference cutoff was applied to the computer-generated results. The largest such group so constructed numbered 73 (for Fayetteville State) and the smallest numbered 20 (for Evergreen State). NCHEMS' methodology for building peer groups, however, uses this computer-generated group only as a starting point. Based on inspection of the entire array of IPEDS data for this initial set of

institutions, an “inner” set of peers is selected by human judgment, using not only the data themselves, but also what is known about institutional characteristics and circumstances beyond IPEDS. Two NCHEMS staff members experienced in peer selection processes participated in this judgment-based winnowing process (Dennis Jones and Peter Ewell). The resulting groups of “inner peers” ranged in size from 11 to 22 across the twenty DEEP institutions. To help ensure the integrity of the process for the purposes of ultimately comparing expenditures, every step of the peer selection process was undertaken *without* examining any finance data. The peer groups selected for each DEEP institution are included in Appendix B.

After assembling IPEDS finance data and enrollment data for DEEP institutions and their peers identified through the process above, NCHEMS staff adjusted the finance data to better reflect the goals of the analysis. First, overall Educational and General (E&G) expenses were adjusted to remove areas of activity that are probably unrelated to student engagement. This entailed removing expenditures associated with Research and Public Service, as well as institutional expenditures on Scholarships. Second, a derived variable called “Instruction-Related Expenditures” was constructed for each institution to better capture the overall education-related spending of each institution. This is a standard NCHEMS calculation that includes expenditures on Instruction, Student Services, and a proportion of Academic Support. Third, because NSSE’s focus of attention is the experience of *undergraduate* students and IPEDS data does not distinguish expenditures at the undergraduate and graduate levels, a further adjustment was made. This involved first calculating the proportion of total FTE enrollment represented by graduate students, multiplying this adjustment factor by 1.5 (the typical increment of cost accorded graduate programs in most state-based resource allocation formulae or cost studies), and subtracting the resulting dollar amount from each IPEDS category of expenditure. All subsequent calculations of expenditures per FTE and percentage share of expenditure by IPEDS category were repeated for a) unadjusted dollars, b) E&G adjusted dollars and, c) undergraduate-enrollment adjusted dollars. Finally, because personnel costs represent the majority of institutional costs and these costs vary by region, all results were further examined through a sensitivity analysis to determine the effect of differences in regional cost-of-living. However this analysis revealed that further adjustments on this basis were unnecessary.

Results. DEEP institutions represent a broad cross-section of college and university types and, as a result, vary widely in their expenditures per FTE. For example, among public institutions in DEEP total adjusted E&G expenditures (backing out Research, Public Service, and Scholarships) per FTE student range from a high of \$43,463 for the University of Michigan to a low of \$8,039 for Longwood University. Corresponding figures among private institutions range from a high of \$37,150 for Sweet Briar to a low of \$17,737 for Wofford College. Given such variation, computing overall averages for either DEEP institutions or their peers in general makes little sense. As a result, the procedure followed was to compute means for various expenditure figures for both the “inner” and overall NCHEMS peer groups for each DEEP institution independently, then compare these figures to the corresponding values for each DEEP institution in the form of a ratio. A ratio of greater than one in this calculation indicates that the DEEP

institution's value on the measure in question was higher than its peers, while a value less than one indicates the reverse.

Table 1 below provides summary results for the first set of measures—unadjusted total E&G expenditures per undergraduate FTE student, adjusted E&G expenditures per undergraduate FTE student (total E&G less Research, Public Service, and Scholarship expenditures), and undergraduate-adjusted E&G expenditures per undergraduate FTE student.

Table 1
E&G Expenditures per Undergraduate FTE
Ratios of DEEP Institution to
Peers

	Total E&G per U/G FTE	Adjusted E&G per U/G FTE	U/G Adj E&G per U/G FTE
All DEEP Institutions	1.00	1.00	1.00
Inner NCHEMS Peers	1.15	1.13	1.12
All NCHEMS Peers	1.14	1.12	1.12

As is evident, DEEP institutions overall spent more per FTE undergraduate in all three E&G expenditure categories than their peer institutions. But this overall trend was not true in all cases. Tables A-1 and A-2 in Appendix A show raw dollars per FTE figures and indexed figures for each of the twenty DEEP institutions and their respective peer groups. These show that eleven DEEP institutions spent more than ten percent more their peers in raw E&G expenditures per FTE, while only two spent ten percent or more less. Examining undergraduate adjusted E&G expenditures per undergraduate FTE, the same pattern is apparent although it is less pronounced.

Table 2 provides summary results for the second set of measures. These consist of undergraduate adjusted expenditures per undergraduate FTE by four categories of expenditure—instruction, student services, academic support, and the NCHEMS derived measure “instruction-related” expenditures.

Table 2
U/G Adjusted Expenditures per U/G FTE by
Category
Ratios of DEEP Institution to
Peers

	U/G Adjusted Instruction per U/G FTE	U/G Adjusted Student Services per U/G FTE	U/G Adjusted Academic Support per U/G FTE	U/G Adjusted Instruction Related per U/G FTE
All DEEP Institutions	1.00	1.00	1.00	1.00
Inner NCHEMS Peers	1.08	1.01	1.27	1.10

All NCHEMS Peers	1.09	1.04	1.24	1.10
-------------------------	------	------	------	------

DEEP institutions overall tended to spend somewhat more than their peers in the area of instruction and notably more in the area of academic support. The combination of these two factors shows up in instruction-related expenditures as well. Examining the pattern of results by institution shown in Tables A-3 and A-4, however, reveals substantial differences in instructional expenditures with about as many institutions spending less as spending more than their peers. With respect to academic support, however, fourteen of twenty DEEP institutions outspent their peers by ten percent or more, while five spent ten percent or more less.

Finally, Table 3 shows results for the third set of measures, consisting of the proportion of undergraduate-adjusted E&G expenditures represented by each of the four expenditure categories shown in Table 2. Looked at in combination, Table 2 shows how much institutions spent in absolute terms per FTE undergraduate, while Table 3 shows how much of their spending effort went into each of these categories regardless of how much they had to spend.

Table 3
Percentage of Adjusted E/G Expenditures by
Category
Ratios of DEEP Institution to
Peers

	Instruction	Student Services	Academic Support	Instruction Related
All DEEP Institutions	1.00	1.00	1.00	1.00
Inner NCHEMS Peers	0.96	0.89	1.13	0.97
All NCHEMS Peers	0.96	0.89	1.11	0.97

Overall, these results show DEEP institutions spending a slightly lower proportion of their available dollars on instruction and instruction-related activities (although, as noted, they tended to spend somewhat more per FTE in an absolute sense). But they spent a noticeably higher proportion of their available dollars on academic support than their peers. Once again, this pattern was not apparent across all institutions, as shown by Tables A-5 and A-6 in the Appendix. Twelve of twenty DEEP institutions exceeded the percentage share their peers allocated to academic support by ten percent, while six showed percentage shares of ten percent or more below their peers.

The emergence of academic support as an unusually high expenditure category by many DEEP institutions is interesting, as this is the expenditure category under which most institutions report resources dedicated to things like faculty development or teaching and learning centers, non-faculty academic affairs staff such as those involved in curriculum development or assessment, and instructional technology. Many of these dollars support

activities that the DEEP research team found particularly distinctive or effective in these institutions (though some of these activities were cited for institutions like *** and *** that did not exhibit high expenditures in academic support compared to their peers [HAVE NOT GOTTEN TO THE DETAILS OF INSTITUTION-BY-INSTITUTION REVIEW HERE]).

It is important to stress in closing that the overall trends in expenditures reported above show only modest difference between DEEP institutions and their peers, and that not all DEEP institutions in fact demonstrated these patterns. Indeed, if these differences mean anything at all, it is probably in the context of the particular set of distinctive educational practices reported for each institution in the DEEP research itself. And it is equally important to stress that the process used to select the “inner peers” for this analysis involved human judgment as well as statistical grouping (though the differences in expenditure patterns exhibited by the larger peer groups selected entirely by means of the statistical algorithm tended to be similar to those of the “inner peers,” only weaker). These caveats are certainly substantial. But the emergence of a dominant pattern of higher overall per FTE expenditures, higher expenditures per FTE on academic support, and higher percentages of adjusted E&G expenditures for academic support for many DEEP institutions remains intriguing.

Table A-1
E&G Expenditures per Undergraduate FTE

Institution	Total E&G per U/G FTE	Adjusted E&G per U/G FTE	U/G Adj E&G per U/G FTE
Alverno	18,110	17,409	16,188
Inner NCHEMS Peer	14,350	12,714	12,182
All NCHEMS Peer	13,678	12,690	12,170
CSUMB	16,390	14,783	13,763
Inner NCHEMS Peer	15,724	13,631	9,729
All NCHEMS Peer	14,945	12,973	9,937
Evergreen	15,134	11,530	10,849
Inner NCHEMS Peer	13,092	10,861	10,539
All NCHEMS Peer	11,573	9,768	9,420
Fayetteville State	13,593	11,360	9,555
Inner NCHEMS Peer	13,335	11,553	9,714
All NCHEMS Peer	14,384	12,155	9,895
George Mason	19,722	15,672	9,869
Inner NCHEMS Peer	14,771	12,453	9,360
All NCHEMS Peer	17,053	14,323	10,043
Gonzaga	23,333	21,357	14,222
Inner NCHEMS Peer	21,858	20,674	14,042
All NCHEMS Peer	21,803	20,951	13,688
Longwood	9,990	8,039	7,257
Inner NCHEMS Peer	10,726	9,253	9,016
All NCHEMS Peer	12,887	11,218	10,891
Macalester	34,096	33,302	33,302
Inner NCHEMS Peer	36,227	34,746	34,746
All NCHEMS Peer	30,348	28,852	28,773
Miami Oxford	16,224	15,014	13,915
Inner NCHEMS Peer	12,771	10,933	9,524
All NCHEMS Peer	12,813	10,902	9,287
Sweet Briar	39,466	37,150	37,150
Inner NCHEMS Peer	23,890	23,312	23,312
All NCHEMS Peer	28,548	27,345	27,288

Univ Kansas	21,217	14,546	10,692
Inner NCHEMS Peer	34,388	20,464	13,962
All NCHEMS Peer	38,515	23,605	15,055
Univ Maine Farmington	11,023	9,062	9,062
Inner NCHEMS Peer	11,237	9,582	9,093
All NCHEMS Peer	12,168	10,182	9,310
Univ Michigan Ann Arbor	69,334	43,643	21,097
Inner NCHEMS Peer	45,426	28,660	17,734
All NCHEMS Peer	39,228	24,725	15,584
Univ Texas El Paso	15,181	10,352	8,553
Inner NCHEMS Peer	13,713	11,540	8,935
All NCHEMS Peer	13,784	11,652	9,446
Univ of the South	36,857	35,485	31,528
Inner NCHEMS Peer	31,830	29,770	29,770
All NCHEMS Peer	30,227	28,918	28,560
Ursinus	26,337	25,671	25,671
Inner NCHEMS Peer	24,876	23,095	22,985
All NCHEMS Peer	26,814	25,494	25,443
Wabash	46,035	41,561	41,561
Inner NCHEMS Peer	33,188	31,347	31,266
All NCHEMS Peer	28,420	27,330	27,059
Wheaton	30,017	28,566	28,566
Inner NCHEMS Peer	33,508	31,894	31,894
All NCHEMS Peer	29,709	28,191	28,191
Winston Salem	17,211	14,772	14,603
Inner NCHEMS Peer	12,557	10,321	9,548
All NCHEMS Peer	12,609	10,608	9,400
Wofford	22,528	18,737	18,737
Inner NCHEMS Peer	19,855	19,576	19,569
All NCHEMS Peer	25,421	24,220	24,025

Table A-2
E&G Expenditures per Undergraduate FTE
(Ratios)

Institution	Total E&G per U/G FTE	Adjusted E&G per U/G FTE	U/G Adj E&G per U/G FTE
Alverno	1.00	1.00	1.00
Inner NCHEMS Peer	1.26	1.37	1.33
All NCHEMS Peer	1.32	1.37	1.33
CSUMB	1.00	1.00	1.00
Inner NCHEMS Peer	1.04	1.08	1.41
All NCHEMS Peer	1.10	1.14	1.38
Evergreen	1.00	1.00	1.00
Inner NCHEMS Peer	1.16	1.06	1.03
All NCHEMS Peer	1.31	1.18	1.15
Fayetteville State	1.00	1.00	1.00
Inner NCHEMS Peer	1.02	0.98	0.98
All NCHEMS Peer	0.95	0.93	0.97
George Mason	1.00	1.00	1.00
Inner NCHEMS Peer	1.34	1.26	1.05
All NCHEMS Peer	1.16	1.09	0.98
Gonzaga	1.00	1.00	1.00
Inner NCHEMS Peer	1.07	1.03	1.01
All NCHEMS Peer	1.07	1.02	1.04
Longwood	1.00	1.00	1.00
Inner NCHEMS Peer	0.93	0.87	0.80
All NCHEMS Peer	0.78	0.72	0.67
Macalester	1.00	1.00	1.00
Inner NCHEMS Peer	0.94	0.96	0.96
All NCHEMS Peer	1.12	1.15	1.16
Miami Oxford	1.00	1.00	1.00
Inner NCHEMS Peer	1.27	1.37	1.46
All NCHEMS Peer	1.27	1.38	1.50
Sweet Briar	1.00	1.00	1.00

Inner NCHEMS Peer	1.65	1.59	1.59
All NCHEMS Peer	1.38	1.36	1.36
Univ Kansas	1.00	1.00	1.00
Inner NCHEMS Peer	0.62	0.71	0.77
All NCHEMS Peer	0.55	0.62	0.71
Univ Maine Farmington	1.00	1.00	1.00
Inner NCHEMS Peer	0.98	0.95	1.00
All NCHEMS Peer	0.91	0.89	0.97
Univ Michigan Ann Arbor	1.00	1.00	1.00
Inner NCHEMS Peer	1.53	1.52	1.19
All NCHEMS Peer	1.77	1.77	1.35
Univ Texas El Paso	1.00	1.00	1.00
Inner NCHEMS Peer	1.11	0.90	0.96
All NCHEMS Peer	1.10	0.89	0.91
Univ of the South	1.00	1.00	1.00
Inner NCHEMS Peer	1.16	1.19	1.06
All NCHEMS Peer	1.22	1.23	1.10
Ursinus	1.00	1.00	1.00
Inner NCHEMS Peer	1.06	1.11	1.12
All NCHEMS Peer	0.98	1.01	1.01
Wabash	1.00	1.00	1.00
Inner NCHEMS Peer	1.39	1.33	1.33
All NCHEMS Peer	1.62	1.52	1.54
Wheaton	1.00	1.00	1.00
Inner NCHEMS Peer	0.90	0.90	0.90
All NCHEMS Peer	1.01	1.01	1.01
Winston Salem	1.00	1.00	1.00
Inner NCHEMS Peer	1.37	1.43	1.53
All NCHEMS Peer	1.36	1.39	1.55
Wofford	1.00	1.00	1.00
Inner NCHEMS Peer	1.13	0.96	0.96
All NCHEMS Peer	0.89	0.77	0.78
All DEEP Institutions	1.00	1.00	1.00
Inner NCHEMS Peer	1.15	1.13	1.12
All NCHEMS Peer	1.14	1.12	1.12

Table A-3
U/G Adjusted Expenditures per U/G FTE by Category

Institution	U/G Adj Instruc per U/G FTE	U/G Adj Stud Ser per U/G FTE	U/G Adj Ac Sup per U/G FTE	U/G Adj Inst Rel per U/G FTE
Alverno	5,831	2,713	2,313	10,590
Inner NCHEMS Peer	4,976	2,407	1,361	8,647
All NCHEMS Peer	4,980	2,281	1,238	8,421
CSUMB	6,779	2,027	2,807	11,575
Inner NCHEMS Peer	4,818	1,045	1,190	6,886
All NCHEMS Peer	4,787	1,117	1,244	7,001
Evergreen	4,643	1,138	1,466	6,930
Inner NCHEMS Peer	5,314	1,074	797	7,058
All NCHEMS Peer	4,697	959	880	6,411
Fayetteville State	4,529	638	1,317	6,227
Inner NCHEMS Peer	4,681	1,176	1,182	6,858
All NCHEMS Peer	4,840	1,043	1,131	6,820
George Mason	6,158	598	1,017	7,466
Inner NCHEMS Peer	4,841	981	1,171	6,769
All NCHEMS Peer	5,070	986	1,228	7,017
Gonzaga	6,653	2,111	1,956	10,557
Inner NCHEMS Peer	6,937	2,031	1,645	10,317
All NCHEMS Peer	6,444	2,244	1,530	9,947
Longwood	3,752	507	1,099	5,228
Inner NCHEMS Peer	4,336	1,313	950	6,504
All NCHEMS Peer	4,832	1,533	1,281	7,475
Macalester	13,483	6,384	3,325	23,007
Inner NCHEMS Peer	14,960	5,876	4,554	25,068
All NCHEMS Peer	12,367	5,144	3,273	20,595
Miami Oxford	8,030	1,216	1,459	10,592
Inner NCHEMS Peer	4,926	975	1,179	6,884
All NCHEMS Peer	4,747	990	1,168	6,709

Sweet Briar	16,089	4,658	4,264	24,721
Inner NCHEMS Peer	10,036	4,230	2,601	16,779
All NCHEMS Peer	11,558	4,918	3,055	19,353
Univ Kansas	6,283	643	1,711	7,959
Inner NCHEMS Peer	7,867	866	1,963	9,660
All NCHEMS Peer	8,474	945	2,308	10,521
Univ Maine Farmington	4,752	1,349	1,092	7,047
Inner NCHEMS Peer	4,252	1,053	966	6,154
All NCHEMS Peer	4,597	1,132	1,001	6,583
Univ Michigan Ann Arbor	11,237	1,412	2,669	13,785
Inner NCHEMS Peer	10,057	1,131	2,799	12,527
All NCHEMS Peer	8,775	1,002	2,400	10,954
Univ Texas El Paso	4,451	682	649	5,518
Inner NCHEMS Peer	4,602	910	968	6,293
All NCHEMS Peer	4,848	902	1,117	6,675
Univ of the South	13,323	5,743	4,048	22,853
Inner NCHEMS Peer	12,206	5,854	3,414	21,292
All NCHEMS Peer	12,215	5,071	3,410	20,491
Ursinus	9,468	4,072	3,115	16,451
Inner NCHEMS Peer	9,824	4,638	2,518	16,882
All NCHEMS Peer	10,904	4,725	3,023	18,507
Wabash	13,110	9,826	4,809	26,521
Inner NCHEMS Peer	13,335	6,420	3,332	22,884
All NCHEMS Peer	11,367	5,077	2,956	19,228
Wheaton	9,068	7,101	2,756	18,926
Inner NCHEMS Peer	13,369	5,643	3,807	22,566
All NCHEMS Peer	11,699	5,060	3,316	19,898
Winston Salem	7,399	1,082	1,731	9,947
Inner NCHEMS Peer	4,653	1,080	870	6,486
All NCHEMS Peer	4,578	1,143	1,033	6,610
Wofford	5,844	1,602	3,266	10,713
Inner NCHEMS Peer	7,993	4,108	2,253	14,299
All NCHEMS Peer	10,139	4,735	2,581	17,328

Table A-4
U/G Adjusted Expenditures per U/G FTE by Category (Ratios)

Institution	U/G Adj Instruc per U/G FTE	U/G Adj Stud Ser per U/G FTE	U/G Adj Ac Sup per U/G FTE	U/G Adj Inst Rel per U/G FTE
Alverno	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	1.17	1.13	1.70	1.22
All NCHEMS Peer	1.17	1.19	1.87	1.26
CSUMB	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	1.41	1.94	2.36	1.68
All NCHEMS Peer	1.42	1.81	2.26	1.65
Evergreen	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	0.87	1.06	1.84	0.98
All NCHEMS Peer	0.99	1.19	1.67	1.08
Fayetteville State	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	0.97	0.54	1.11	0.91
All NCHEMS Peer	0.94	0.61	1.17	0.91
George Mason	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	1.27	0.61	0.87	1.10
All NCHEMS Peer	1.21	0.61	0.83	1.06
Gonzaga	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	0.96	1.04	1.19	1.02
All NCHEMS Peer	1.03	0.94	1.28	1.06
Longwood	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	0.87	0.39	1.16	0.80
All NCHEMS Peer	0.78	0.33	0.86	0.70
Macalester	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	0.90	1.09	0.73	0.92
All NCHEMS Peer	1.09	1.24	1.02	1.12
Miami Oxford	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	1.63	1.25	1.24	1.54
All NCHEMS Peer	1.69	1.23	1.25	1.58

Sweet Briar	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	1.60	1.10	1.64	1.47
All NCHEMS Peer	1.39	0.95	1.40	1.28
Univ Kansas	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	0.80	0.74	0.87	0.82
All NCHEMS Peer	0.74	0.68	0.74	0.76
Univ Maine Farmington	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	1.12	1.28	1.13	1.15
All NCHEMS Peer	1.03	1.19	1.09	1.07
Univ Michigan Ann Arbor	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	1.12	1.25	0.95	1.10
All NCHEMS Peer	1.28	1.41	1.11	1.26
Univ Texas El Paso	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	0.97	0.75	0.67	0.88
All NCHEMS Peer	0.92	0.76	0.58	0.83
Univ of the South	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	1.09	0.98	1.19	1.07
All NCHEMS Peer	1.09	1.13	1.19	1.12
Ursinus	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	0.96	0.88	1.24	0.97
All NCHEMS Peer	0.87	0.86	1.03	0.89
Wabash	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	0.98	1.53	1.44	1.16
All NCHEMS Peer	1.15	1.94	1.63	1.38
Wheaton	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	0.68	1.26	0.72	0.84
All NCHEMS Peer	0.78	1.40	0.83	0.95
Winston Salem	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	1.59	1.00	1.99	1.53
All NCHEMS Peer	1.62	0.95	1.68	1.50
Wofford	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	0.73	0.39	1.45	0.75
All NCHEMS Peer	0.58	0.34	1.27	0.62
All DEEP Institutions	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	1.08	1.01	1.27	1.10
All NCHEMS Peer	1.09	1.04	1.24	1.10

Table A-5
Percentage of Adjusted E/G Expenditures by Category

Institution	Pct Adj E&G Instruction	Pct Adj E&G StuServices	Pct Adj E&G AcSupport	Pct Adj E&G InstRelated
Alverno	36.0%	16.8%	14.3%	65.4%
Inner NCHEMS Peer	40.9%	19.8%	11.3%	71.2%
All NCHEMS Peer	40.9%	18.9%	10.1%	69.3%
CSUMB	49.3%	14.7%	20.4%	84.1%
Inner NCHEMS Peer	49.8%	10.8%	12.0%	70.8%
All NCHEMS Peer	49.0%	11.4%	12.3%	71.0%
Evergreen	42.8%	10.5%	13.5%	63.9%
Inner NCHEMS Peer	51.5%	10.4%	8.0%	68.6%
All NCHEMS Peer	50.7%	10.3%	9.8%	69.5%
Fayetteville State	47.4%	6.7%	13.8%	65.2%
Inner NCHEMS Peer	48.8%	12.1%	12.2%	71.2%
All NCHEMS Peer	49.7%	10.6%	11.5%	69.9%
George Mason	62.4%	6.1%	10.3%	75.6%
Inner NCHEMS Peer	51.8%	10.5%	12.5%	72.4%
All NCHEMS Peer	50.6%	9.9%	12.3%	70.1%
Gonzaga	46.8%	14.8%	13.8%	74.2%
Inner NCHEMS Peer	49.4%	15.1%	11.8%	74.1%
All NCHEMS Peer	47.8%	17.0%	11.2%	73.9%
Longwood	51.7%	7.0%	15.1%	72.0%
Inner NCHEMS Peer	48.8%	14.2%	10.6%	72.7%
All NCHEMS Peer	45.7%	13.9%	11.4%	69.6%
Macalester	40.5%	19.2%	10.0%	69.1%
Inner NCHEMS Peer	43.0%	17.2%	13.0%	72.3%
All NCHEMS Peer	43.2%	18.3%	11.4%	72.3%
Miami Oxford	57.7%	8.7%	10.5%	76.1%
Inner NCHEMS Peer	51.7%	10.5%	12.3%	72.5%
All NCHEMS Peer	51.3%	10.8%	12.5%	72.4%

Sweet Briar	43.3%	12.5%	11.5%	66.5%
Inner NCHEMS Peer	42.8%	18.8%	11.2%	72.5%
All NCHEMS Peer	42.7%	18.4%	11.0%	71.6%
 Univ Kansas	 58.8%	 6.0%	 16.0%	 74.4%
Inner NCHEMS Peer	56.2%	6.2%	13.9%	68.9%
All NCHEMS Peer	56.1%	6.4%	15.2%	69.6%
 Univ Maine Farmington	 52.4%	 14.9%	 12.1%	 77.8%
Inner NCHEMS Peer	47.6%	11.7%	10.3%	68.5%
All NCHEMS Peer	49.9%	12.1%	10.6%	71.0%
 Univ Michigan Ann Arbor	 53.3%	 6.7%	 12.7%	 65.3%
Inner NCHEMS Peer	56.6%	6.5%	15.3%	70.3%
All NCHEMS Peer	56.3%	6.4%	15.1%	70.1%
 Univ Texas El Paso	 52.0%	 8.0%	 7.6%	 64.5%
Inner NCHEMS Peer	51.8%	10.0%	10.7%	70.4%
All NCHEMS Peer	51.6%	9.6%	11.8%	71.0%
 Univ of the South	 42.3%	 18.2%	 12.8%	 72.5%
Inner NCHEMS Peer	40.8%	19.5%	11.3%	71.0%
All NCHEMS Peer	43.2%	18.2%	11.8%	72.6%
 Ursinus	 36.9%	 15.9%	 12.1%	 64.1%
Inner NCHEMS Peer	43.0%	20.0%	11.4%	74.0%
All NCHEMS Peer	43.4%	18.6%	11.8%	73.2%
 Wabash	 31.5%	 23.6%	 11.6%	 63.8%
Inner NCHEMS Peer	42.6%	20.2%	10.5%	72.7%
All NCHEMS Peer	42.3%	19.1%	10.7%	71.6%
 Wheaton	 31.7%	 24.9%	 9.6%	 66.3%
Inner NCHEMS Peer	41.4%	17.8%	11.7%	70.2%
All NCHEMS Peer	41.7%	18.4%	11.6%	71.2%
 Winston Salem	 50.7%	 7.4%	 11.9%	 68.1%
Inner NCHEMS Peer	49.4%	11.3%	9.4%	68.7%
All NCHEMS Peer	49.4%	12.2%	11.0%	71.1%
 Wofford	 31.2%	 8.6%	 17.4%	 57.2%
Inner NCHEMS Peer	41.1%	21.0%	11.4%	73.3%
All NCHEMS Peer	42.7%	19.8%	10.9%	72.9%

Table A-6
Percentage of Adjusted E/G Expenditures by Category (Ratios)

Institution	Pct Adj E&G Instruction	Pct Adj E&G StuServices	Pct Adj E&G AcSupport	Pct Adj E&G InstRelated
Alverno	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	0.88	0.85	1.26	0.92
All NCHEMS Peer	0.88	0.88	1.42	0.94
CSUMB	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	0.99	1.37	1.70	1.19
All NCHEMS Peer	1.01	1.29	1.66	1.18
Evergreen	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	0.83	1.01	1.68	0.93
All NCHEMS Peer	0.84	1.02	1.38	0.92
Fayetteville State	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	0.97	0.55	1.13	0.92
All NCHEMS Peer	0.95	0.63	1.20	0.93
George Mason	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	1.20	0.58	0.83	1.04
All NCHEMS Peer	1.23	0.61	0.83	1.08
Gonzaga	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	0.95	0.98	1.16	1.00
All NCHEMS Peer	0.98	0.87	1.23	1.00
Longwood	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	1.06	0.49	1.42	0.99
All NCHEMS Peer	1.13	0.50	1.33	1.04
Macalester	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	0.94	1.11	0.77	0.96
All NCHEMS Peer	0.94	1.05	0.87	0.96
Miami Oxford	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	1.12	0.83	0.85	1.05
All NCHEMS Peer	1.13	0.81	0.84	1.05

Sweet Briar	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	1.01	0.67	1.03	0.92
All NCHEMS Peer	1.01	0.68	1.04	0.93
 Univ Kansas	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	1.05	0.96	1.15	1.08
All NCHEMS Peer	1.05	0.94	1.05	1.07
 Univ Maine Farmington	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	1.10	1.27	1.18	1.14
All NCHEMS Peer	1.05	1.23	1.14	1.09
 Univ Michigan Ann Arbor	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	0.94	1.04	0.83	0.93
All NCHEMS Peer	0.95	1.04	0.84	0.93
 Univ Texas El Paso	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	1.00	0.80	0.71	0.92
All NCHEMS Peer	1.01	0.83	0.64	0.91
 Univ of the South	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	1.04	0.93	1.13	1.02
All NCHEMS Peer	0.98	1.00	1.09	1.00
 Ursinus	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	0.86	0.79	1.07	0.87
All NCHEMS Peer	0.85	0.85	1.03	0.88
 Wabash	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	0.74	1.17	1.10	0.88
All NCHEMS Peer	0.75	1.23	1.08	0.89
 Wheaton	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	0.77	1.40	0.82	0.94
All NCHEMS Peer	0.76	1.35	0.83	0.93
 Winston Salem	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	1.03	0.66	1.26	0.99
All NCHEMS Peer	1.03	0.61	1.07	0.96
 Wofford	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	0.76	0.41	1.53	0.78
All NCHEMS Peer	0.73	0.43	1.61	0.78
 All DEEP Institutions	1.00	1.00	1.00	1.00
Inner NCHEMS Peer	0.96	0.89	1.13	0.97

All NCHEMS Peer

0.96

0.89

1.11

0.97

ALVERNO COLLEGE

“Inner Peers”	All NCHEMS Peers
<p>ANDERSON COLLEGE BLOOMFIELD COLLEGE CONCORDIA UNIVERSITY DOMINICAN COLLEGE OF BLAUVELT FLORIDA MEMORIAL COLLEGE FLORIDA SOUTHERN COLLEGE GRAND VIEW COLLEGE KINGS COLLEGE LORAS COLLEGE MCKENDREE COLLEGE MCMURRY UNIVERSITY METHODIST COLLEGE MOUNT MERCY COLLEGE NOTRE DAME COLLEGE OHIO DOMINICAN UNIVERSITY SAINT THOMAS AQUINAS COLLEGE ST FRANCIS COLLEGE</p>	<p>ANDERSON COLLEGE BLOOMFIELD COLLEGE CONCORDIA UNIVERSITY DOMINICAN COLLEGE OF BLAUVELT FLORIDA MEMORIAL COLLEGE FLORIDA SOUTHERN COLLEGE GRAND VIEW COLLEGE KINGS COLLEGE LORAS COLLEGE MCKENDREE COLLEGE MCMURRY UNIVERSITY METHODIST COLLEGE MOUNT MERCY COLLEGE NOTRE DAME COLLEGE OHIO DOMINICAN UNIVERSITY SAINT THOMAS AQUINAS COLLEGE ST FRANCIS COLLEGE ADRIAN COLLEGE AUGUSTANA COLLEGE BENEDICT COLLEGE BRIAR CLIFF UNIVERSITY CATAWBA COLLEGE CLEARWATER CHRISTIAN COLLEGE CONCORDIA COLLEGE CONCORDIA UNIVERSITY EAST TEXAS BAPTIST UNIVERSITY EDWARD WATERS COLLEGE EVANGEL UNIVERSITY FLAGLER COLLEGE HIGH POINT UNIVERSITY MARIAN COLLEGE MARYMOUNT MANHATTAN COLLEGE MERRIMACK COLLEGE MILLIKIN UNIVERSITY NEWMAN UNIVERSITY NORTHWESTERN COLLEGE OKLAHOMA BAPTIST UNIVERSITY ROCKY MOUNTAIN COLLEGE SAINT ANSELM COLLEGE SIENA HEIGHTS UNIVERSITY</p>

	STILLMAN COLLEGE TEXAS LUTHERAN UNIVERSITY UNION UNIVERSITY VANGUARD UNIVERSITY OF SOUTHERN CALIFORNIA VIRGINIA INTERMONT COLLEGE
--	--